

May 29, 2007



U.S. Department
of Transportation

East Bldg, PHH-30
1200 New Jersey Ave, S.E.
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 14173
(THIRD REVISION)

EXPIRATION DATE: April 30, 2011

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Dow Chemical Company and its subsidiaries
Midland, MI
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of DOT Specification 105J400W tank cars having a maximum gross weight on rail at 286,000 pounds for the transportation of certain hazardous materials. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically provided herein.
 - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce.
 - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.203(a) in that marking the special permit number on the shipping paper is waived; and §§ 173.26 and 179.13 in that the authorized maximum gross weight on rail is 286,000 pounds.
5. BASIS: This special permit is based on the application of Dow Chemical Company dated May 24, 2007, submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Ethylene oxide or Ethylene oxide with nitrogen up to a total pressure of 1MPa (10 bar) at 50 degrees C	2.3	UN1040	N/A

7. SAFETY CONTROL MEASURES:a. PACKAGING:

- i. Packaging prescribed are DOT Class 105J tank cars having a tank test pressure of 400 psig.
- ii. Each tank car must conform with the Association of American Railroads' Manual of Standards and Recommended Practices, Manual C-II, Specification S-286, and Manual C-III, Section 2.5., and the following additional requirements:
 - o Puncture Resistance: Tank heads and shell manufactured from AAR TC 128 Gr. B, normalized at thicknesses determined by 49 CFR 179.100-6 for a tank test pressure of 400 psig, plus 0.010 for plate tolerance.
 - o Head Protection: 49 CFR 179.16 and the Association of American Railroads' Manual of Standards and Recommended Practices, Manual C-III, Section 2.5.
 - o Controlling Longitudinal Loadings: AAR 901-E draft gears to attenuate the rail yard and in-train compressive and axial forces on the tank car structure.

- o Structural worthiness: Stub-sill designed and built to a million mile fatigue life, calculated by applying an overall load factor of 1.09 to those designs approved for gross rail loads at 263,000 pounds.
 - o Trackworthiness: Trucks are variable-dampened type: Barber S-2-E, or alternative S-2-HD, or ASF Motion Control, to improve ride quality and overall truck performance.
 - o Pressure Relief Device: Re-closing pressure relief device designed and tested in accordance with 49 CFR 179.15.
 - o Service Equipment Protection: Top fitting protection designed to 49 CFR 179.100-12.
- iii. Each tank car may be loaded to a maximum gross weight on rail not to exceed 286,000 pounds, provided that the tank is not loaded in excess of the amount authorized per § 173.24b.
- b. MARKING: - Each tank car operating under the terms of this special permit must be marked "DOT-SP 14173" in four-inch letters and numerals on a contrasting background above the DOT Specification number.

8. SPECIAL PROVISIONS:

- a. A person who is not the holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modifications or changes are made to the package or its contents and it is reoffered for transportation in conformance with this special permit and the HMR.
- b. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation, except that the special permit is not required to be maintained at locations that offer residue only.

- c. In addition to information listed in § 107.107, and prior to any initial loading of any car under the terms of this special permit, the applicant must furnish reporting marks, car numbers, and certificate-of-construction numbers for all subject cars. The applicant shall maintain and make available upon request routing information that confirms with the railroad carrier its track capacity to transport cars loaded to more than 263,000 lb. gross rail load.
- d. The additional information requirement for shipping papers in § 172.203(a) is waived.
- e. The applicant shall make available its complete maintenance and qualification program to the Federal Railroad Administration upon request (see the Association of American Railroads' Manual of Standards and Recommended Practices, Manual C-III, Recommended Practice RP-263). The maintenance program must incorporate any additional structurally significant components that may be adversely affected by the increased rail load to ensure the continual fitness-for-service of the component based on the inspection method and the inspection interval specified in the maintenance program.
- f. Packagings permanently marked "DOT-E 14173," prior to October 1, 2007, may continue to be used under this special permit for the remaining service life of the packaging or until the special permit is no longer valid. Packagings marked on or after October 1, 2007, must be marked "DOT-SP 14173."

9. MODES OF TRANSPORTATION AUTHORIZED: Rail freight.

10. MODAL REQUIREMENTS: The applicant must notify the Federal Railroad Administration if any unusual incident occurs during the movement by contacting:

Federal Railroad Administration
Hazardous Materials Division
RRS-12, Mail Stop 25
1120 Vermont Avenue, N.W.
Washington, D.C. 20590
(202) 493-6229 or 493-6247

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations 49 CFR Parts 171-180.
- o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required by §107.601 et seq., when applicable.

Each "hazmat employee," as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when the special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)- 'The Hazardous Materials Safety and Security Reauthorization Act of 2005' (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term 'exemption' to 'special permit' and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous

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materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Bob Richard
Deputy Associate Administrator
for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: kah